



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/688,456

10/17/2003

Randy C. Frye

60130-1815; 03MRA0139

3033

26096

7590

06/15/2006

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

ABDELWAHED, ALI F

ART UNIT

PAPER NUMBER

3722

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,456

Applicant(s)

FRYE ET AL.

Examiner

Ali Abdelwahed

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-16 and 19-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-16 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/29/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The indicated allowability of claims 4-7, 18, 19, 21, and 22 is withdrawn in view of the newly discovered reference(s) to Shube, Gardner, and Green et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 7, 8, 11-16 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,858,491 to Shube.

Shube discloses a machine (10) comprising: a lead screw assembly (58) having a tool holder (64), first (12a) and second (12b) motors; and a coupling assembly interconnecting the first and second motors to the lead screw assembly for selectively transmitting rotational drive from the first and second motors to the lead screw assembly (see fig.1, and Abstract). The coupling assembly having a first engaged condition rotationally coupling the first motor to the lead screw assembly moving the tool holder in a first direction, and a second engaged condition rotationally coupling the second motor to the lead screw assembly moving the tool holder in a second direction opposite the first direction (see column 2, lines 20-24). The first and second motors are simultaneously rotationally driven while the tool holder is moving in both the first and

Art Unit: 3722

second directions (see column 2, lines 24-26). First (50a) and second (50b) clutch/brakes respectively interconnected between the first and second motors and the lead screw assembly (see fig.1). The first and second motors each include a rotational axis with the rotational axes parallel to one another, and wherein the rotational axes are parallel to a lead screw assembly axis (see fig.1). The first and second motors are simultaneously rotationally driven with the tool holder moving between the first and second directions (see column 2, lines 20-28). The lead screw is arranged between the tool holder and the drive motors (see fig.1). First (54a) and second (54b) drive sprockets respectively receiving rotational drive from the first and second clutch/brakes (see fig.1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shube in view of U.S. Patent No. 4,926,709 to Gardner.

Shube discloses the claimed invention except for the drive sprockets being coupled to the lead screw assembly by drive belts. However, Gardner teaches a machine tool comprising a drive sprocket (28) being coupled to the lead screw assembly (43) by a drive belt (27). Therefore, it would have been obvious to one having

Art Unit: 3722

ordinary skill in the art at the time the invention was made to modify the device of Shube, in view of Gardner, such that it would provide the device of Shube with the drive sprockets being coupled to the lead screw assembly by drive belts rather than gears for the purpose of providing a more economical connection between the drive sprockets and the lead screw assembly.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shube in view of U.S. Patent No. 5,165,828 to Green et al.

Shube discloses the claimed invention except for lead screw assembly position sensors connected to a controller providing lead screw assembly position information, and the controller commanding at least one clutch/brake to obtain either the first or second engaged conditions in response to the lead screw assembly position information. However, Green et al. teaches a cutting machine comprising lead screw assembly position sensor connected to the controller providing lead screw assembly position information (see column 4, lines 12-17), and the controller (21) commanding at least one clutch/brake to obtain either the first or second engaged conditions in response to the lead screw assembly position information (see column 5, lines 44-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Shube, in view of Green et al., such that it would provide the device of Shube with the concept of the aforementioned limitations for the purpose of providing a controller with information regarding the position of the lead screw assembly with respect to the work piece in order to allow the controller to

Art Unit: 3722

determine whether or not to apply the clutch/brake in response to the lead screw assembly position information.

Response to Arguments

Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Abdelwahed whose telephone number is (571) 272-4417. The examiner can normally be reached Monday through Friday from 10:00 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner or the examiner's supervisor.

AA
06/07/2006


MONICA CARTER
SUPERVISORY PATENT EXAMINER